Learning From Primary Care EHR
Exemplars About Health Information Technology Safety
(AHRQ R-21)—Sept 2016-August 2018

Steven Ornstein, MD
Founder, PPRNet
Professor of Family Medicine
Medical University of SC
A PPRNet Story

EHR Safety Issues:
- Long out of date HM templates
- Inadequate data capture training/templates
- Unskilled clinical staff

Clinical Impact:
- PPRNet SQUID .33
- Overuse of Grade D Preventive Services
HIT/EHR in Small Office Practice

- Clinical demands impact ability to properly use/update EHR
- Variable skill among primary care clinicians and their staff in EHR use/maintenance
- Limited vendor support in EHR use/training/maintenance beyond initial installation
- Deleterious impacts on clinical productivity, quality, and clinician satisfaction; with potential serious impacts on patient care/safety

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Project Goal

To identify pragmatic approaches to safe electronic health record (EHR) use among exemplar primary care practices with minimal resources devoted to HIT.
Objectives

1. Conduct focus group interviews with primary care clinicians from 20 small exemplar practices to identify their perspectives on recommended practices from the Office of the National Coordinator for HIT SAFER guides, their adoption of these practices, and their impact on EHR safety.

2. Conduct key informant interviews with EHR vendor experts to provide additional perspectives on strategies associated with safe HIT.

3. Use qualitative transcript based analyses to develop a taxonomy of pragmatic key strategies and best practices for safe EHR use in small primary care practices.
BACKGROUND
• Although health information technology (HIT) tools may positively impact many aspects of health care quality and safety, there is increasing recognition of their potential harms due to:
  – Technical issues
  – Users and workflow
  – Rules and regulations regarding their use

• Documented errors in diagnoses, dosing, treatment delays causing serious injuries and death
Recommendations for both private and public sector organizations to:

• Prioritize safe use of HIT across the US healthcare system
• Collaborative transparent approaches in reporting incidents, ongoing monitoring, and research on system level solutions for improving patient safety.
Office of National Coordinator of HIT Response

- Programs to facilitate reporting and surveillance of HIT safety events
- Incorporated safety into the certification criteria for HIT products
- Developed Safety Assurance Factors for EHR Resilience (SAFER) guides to enable EHR users to evaluate and improve safety issues within their own organizations
SAFER Interdependent Dimensions

- Hardware and software
- Clinical content
- Human computer interface
- People
- Workflow and communication
- Internal organizational factors
- External rules
- System measurement and monitoring
Research to Date/Needed

• Defining, categorizing, monitoring and preventing technology-induced errors
• Focus on standardization as a means to ensure safe design, implementation and use
• Much work done in large clinical settings/big HIT systems/budgets
• **Needed are studies of the manner in which small primary care practices with minimal resources devoted to HIT can pragmatically reduce EHR safety risks**
METHODS
Study Approach

• Modelled on “Learning from Primary Care Meaningful Use Exemplars” study
• Elucidated sociotechnical factors associated with high performance on clinical quality measures (CQM) and produced a set of recommendations for improving the MU CQMs
Multimethod Study

- Quantitative assessment of “Best Practices” in HIT safety—top tertile of PPRNet-SQUID
- Focus groups with lead clinician from “Best Practices”
- Key informant interviews with EHR vendor experts
Focus Group Topic Examples

1. How does your practice develop/maintain the knowledge to train, test, and provide continuous support for the clinical EHR users?
2. How were the clinical decision support tools in the EHR (e.g., templates) implemented, reviewed, and updated?
3. How is the EHR used to facilitate test results follow-up?
4. What and how are protocols put in place to be sure that the appropriate clinician is responsible for response to a message?
Domains to Explore for Each Recommended Safety Practice

1. Perceived relevance
2. Extent of adoption/pragmatic strategies
3. Safety issues that may have occurred prior to adoption of the recommended practice
4. Perception of impact of adoption on safety
Focus Groups Logistics/Format

Logistics:
• March-April 2017
• One day, morning and afternoon sessions 2-2 ½ hours each
• In Charleston or other city (suggestions?)
• $1200-$1500 to cover travel, hotel, meals, and honorarium

Format:
• 30 minute introduction to HIT safety, sociotechnical model
• Remainder of time discussing 10-12 topics

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Questions/Comments
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